

WE CLAIM:

1. An antibody specific to an interleukin 18 precursor, said antibody being obtainable from a warm-blooded animal which has been immunized with a polypeptide comprising a part or the whole of the amino acid sequence of the precursor.

2. The antibody of claim 1, whose immunoreactivity against mature interleukin 18 is at most ten percent intensity of that against the precursor.

3. The antibody of claim 1, wherein the polypeptide to immunize the warm-blooded animal comprises a part or the whole of the propeptide sequence of the precursor.

4. The antibody of claim 1, wherein the precursor is of a primate or rodent origin.

5. The antibody of claim 1, wherein the precursor comprises the propeptide sequence shown in SEQ ID NO:1 or 2.

6. The antibody of claim 1, which is in the form of a polyclonal or monoclonal antibody.

7. An isolated cell capable of producing the antibody of claim 1.

8. The cell of claim 7, which is in the form of a hybridoma.

9. An immunoassay kit comprising the antibody of claim 1.

10. A process to prepare an antibody, which comprises the steps of immunizing a warm-blooded animal with a polypeptide comprising a part or the whole of the amino acid sequence of interleukin 18 precursor and collecting an antibody according to claim 1 from a body fluid of the immunized animal.

11. The process of claim 10, wherein the polypeptide to immunize the warm-blooded animal comprises a part or the whole of the amino acid sequence shown in SEQ ID NO:1 or 2 as a part of the precursor sequence.

12. The process of claim 10, wherein the antibody is collected by one or more purification techniques selected from the group consisting of salting out, dialysis, filtration, concentration, centrifugation, separatory sedimentation, gel filtration chromatography, ion-exchange chromatography, high performance liquid chromatography, affinity chromatography, gel electrophoresis, and isoelectric focusing electrophoresis.

13. A process to prepare an antibody, which comprises the steps of culturing *in vivo* or *in vitro* an isolated cell capable of producing an antibody according to claim 1 and collecting the antibody from the resulting product of the *in vivo* or *in vitro* culture.

14. The process of claim 13, wherein the isolated cell is a hybridoma.

15. The process of claim 13, wherein the antibody is collected by one or more purification techniques selected from the group consisting of salting out, dialysis, filtration, concentration, centrifugation, separatory sedimentation, gel filtration chromatography, ion-exchange chromatography, high performance liquid chromatography, affinity chromatography, gel electrophoresis, and isoelectric focusing electrophoresis.

16. A method to detect interleukin 18 precursor, which comprises the steps of contacting a sample with an antibody according to claim 1 to effect an immunoreaction and detecting the precursor on the basis of the immunoreaction.

17. The method of claim 16, which is performed in accordance with an immunoassay selected from the group consisting of enzyme-immunoassay, radioimmunoassay, and fluoroimmunoassay.

18. The method of claim 16, wherein the sample is a biological sample collected from a living body.

19. A detection method effected by performing the method of claim 15 in combination with a detection method for mature interleukin 18 using an antibody against the mature interleukin 18.

20. The method of claim 15, which is a diagnostic method for a disease relating to mature interleukin 18 or interleukin 18 precursor.

21. The method of claim 19, which is a diagnostic method for a disease relating to mature interleukin 18 or interleukin 18 precursor.

22. A method to purify interleukin 18 precursor, which comprises the steps of contacting a mixture containing the precursor and an impurity with an antibody according to claim 1 to adsorb the precursor on the antibody, and desorbing the precursor from the antibody.

23. The method of claim 22, wherein the antibody is immobilized on a water-insoluble carrier.

24. A pharmaceutical composition comprising an ~~the~~ antibody according to claim 1.

25. The pharmaceutical composition of claim 24, which additionally comprises a physiologically acceptable carrier.

26. The pharmaceutical composition of claim 24, which is a remedial, alleviative, or preventive agent for a disease relating to mature interleukin 18 or interleukin 18 precursor.